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EXAMINER

LEE, LAURA MICHELLE

ART UNIT

PAPER NUMBER

3724

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,874	Applicant(s) BENVENUTI ET AL.	
	Examiner LAURA M. LEE	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/22/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-12,15,17-26,44 and 47-54 is/are pending in the application.
- 4a) Of the above claim(s) 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-12, 15,17-24, 26, 44, 47-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed on 12/22/2009 in which claims 1, 4-12, 15, 17-26, 44, 47- 54 are pending, claims 1,48-51 are amended, claim 25 is withdrawn and claims 53-54 are new.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-11, 15, 17-19, 24, 26, and 47-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wierschke (U. S. Patent 5,458,033) in view of Perini (GB2137918).

In regards to claims 1, 48-51 and 53 Wierschke discloses a device (Figure 2) to eliminate trimmings or scraps from series of products comprising an input member (input conveyor, 11, see Figures 8) for the products; an output member (output conveyor near vacuum box 40, see Figures 8) for the products; at least one continuous movable upper flexible member (i.e. at least one of belts, 24/25/26) carrying a series of contact members (i.e. pads, 27/28) for the products (R) aligned with one another, a section of said movable flexible member (4) being devoid of said contact members (see Figure 2, not numbered) to allow trimmings (Au, Ad) to fall (Figures 8A-8L); an

essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during the elimination of said trimmings by the contact members (i.e. 27/28) of the flexible member to said output member (output conveyor); at least one pusher (pusher, 17) to insert the series of products (R) with respective trimmings (Au, Ad) between said flexible member (i.e. one of 24/25/26) and said longitudinal lower supporting element (i.e. 15a/15b or 14 or another of 24/25/26); wherein said flexible member (i.e. one of 24/25/26) is controlled with a cyclically variable speed (servo drive, 31 and master phaser, 34, see col. 4 lines 46-63 and col. 5, lines 29-36,) to carry the section thereof devoid of contact members every time to the level of the tail and head trimmings (Au, Ad) of two consecutive series of products (R) (col. 5, lines 6-35);

Wherein such that every time a new series of products is introduced into the device, said section of flexible member devoid of contact members is capable of being phased with positioning of tail and head trimmings of two consecutive series of product (via servo drive, 31 and master phaser, 34, see col. 4 lines 46-63 and col. 5, lines 29-36)

Wherein at least one of said contact members is constructed and arranged to cyclically mechanically grip and release at least a last product of said series of products (see col. 6, lines 8-15);

A leading contact member (one of the first of 27/28 between notches 28; fig. 3), and a control device (master controller).

Wierschke does not disclose at least one stationary longitudinal lower supporting element for the products, parallel to said upper movable flexible member (i.e. 24/25/26)

and bridging said input and said output member (input and output conveyors); where an essentially aligned position of said flexible member and of said longitudinal lower supporting element being such that the products advance in contact with and supported during the elimination of said trimmings by the contact members (i.e. 27/28) of the flexible member and with the longitudinal lower supporting element (i.e. 15a/15b), as Wierschke discloses that the supporting members (rails 15a/15b) pivot open to discard the trimmings and therefore are not in contact at that moment with the product. The rails 15a/15b are used to guide the rolls in combination with the flexible members 24-26. During elimination of the scrap or end rolls, the rails 15a/15b pivot away from the supporting position so that the unwanted rolls are discarded.

Attention is alternatively directed to the Perini device which similarly discloses a device to eliminate trimmings or scraps from series of products of toilet paper. Perini discloses that the paper products are similarly conveyed by a reciprocating supporting gripping means, that has a void in the supporting portion and also by a bottom supporting conveying means (5) that is offset along the center of the products (see Figure 3). This void and offset supporting means allows the trimming ends to fall away from the desired product, instead of using a mechanical means and control system to pivot open the bottom supporting means as shown by Wierschke. Although the bottom supporting means is constantly in contact with the products and trimmings alike, when the trimming portion enters the void in the reciprocating supporting gripping means, the portion is allowed to fall away from the desired roll sections. Wierschke and Perini both teach a similar scrap end roll removal means involving the cycling of the removal of the

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top/ flexible supporting means to generate a gap in the upper support, whereby the scrap end can be removed from the desired rolls. As previously discussed, Wierschke and Perini disclose varying bottom support means to allow this removal in combination with the top supporting means. It would have been obvious to one of ordinary skill in the art to have employed the teachings of the bottom support means such as shown by Perini in the Wierschke device such that when the absence in the Wierschke supporting means encountered the trimming section, the trimmings would fall on their own away from the desired sections without requiring the additional setup of a mechanically operated and controlled pivoting means. Thus it would have been obvious to have replaced the moving rails (15a/15b) with a non-movable single rail system (15a) as taught by Perini that would still allow for the support of the rolls during movement from the input to output conveyor, but would illuminate the extra mechanical movement of the rail system as shown by Wierschke.

In regards to claim 2, the modified device of Wierschke discloses that the longitudinal supporting element (fixed supporting rails, 14) is stationary. It is also noted conveying direction.

In regards to claim 3, the modified device of Wierschke disclose that said continuous flexible member (i.e. 24/25/26) has at least one first contact member (i.e. a first foraminous portion of 27/28) designed to grasp at least a last product (Ru) of each series and make the last product advance. (Figure 8A-8L)

In regards to claim 4, the modified device of Wierschke discloses wherein said continuous flexible member (i.e. one of 24/25/26) has at least one second contact

member (i.e. a second portion of 27/28) designed to grasp at least a first product of each series (Rd) and make the first product advance. (Figure 8A-8L).

In regards to claim 5, the modified device of Wierschke discloses wherein at least some of the contact members (i.e. 27/28) are provided with a contact surface for the products having a low friction coefficient (low is a relative term), to allow said products to slide with respect to said at least one longitudinal supporting element (15a as modified).

In regards to claim 7, the modified device of Wierschke discloses wherein said flexible member (i.e. one of 24/25/26) is controlled at a variable speed to accelerate, at least a last product of each series with respect to the pusher (17) therebehind (col. 7, lines 25-35)

In regards to claim 7, the modified device of Wierschke discloses wherein said flexible member (i.e. one of 24/25/26) is controlled at a variable speed to accelerate, and optionally subsequently decelerate at least a first product of each series with respect to a subsequent product (col. 4, lines 48-50; col. 7, lines 25-35).

In regards to claim 8, the modified device of Wierschke discloses wherein said flexible member (i.e. one of 24/25/26) is controlled to advance at a lower speed or to stop during an interval of time between arrival of a first product and arrival of a last product of each series, during said interval of time the products being pushed by said pusher (17) and sliding along the flexible member (i.e. 24/25/26) resting on the contact members (15a as modified).

In regards to claim 9, the modified device of Wierschke discloses wherein one or more of said contact members (i.e. 27/28) disposed at each end of a series of contact

members carried by the flexible member (i.e. 24/25/26), adjacent to said portion of the flexible member devoid of contact members, can be operated to have a grasping effect of the products (R) in contact therewith (see Figures 8A-8L).

In regards to claim 10, the modified device of Wierschke discloses wherein said contact members (alternatively mechanical fingers; see col. 6, lines 8-15) deigned to grasp said products (R) are mounted movable (pinching direction), with respect to the flexible member which carries the contact members at least in a direction essentially orthogonal to said flexible member.

In regards to claim 11, the modified device of Wierschke discloses wherein the contact members (i.e. 27/28) designed to grasp the products have a movable portion. The whole contact member is a movable portion about the belts 24/25/26.

In regards to claim 15, the modified device of Wierschke discloses wherein said flexible member (i.e. one of 24/25/26) is laterally staggered with respect to said longitudinal supporting element (14).

In regards to claim 17, the modified device of Wierschke discloses wherein said flexible member (i.e. 24/25/26) is controlled to be accelerated synchronously with a position of said pusher (17), to distance a last product (Ru) of each series from the pusher there behind (col. 4, lines 48-50).

In regards to claim 18, the modified device of Wierschke discloses wherein said flexible member (i.e. 24/25/26) is controlled to be accelerated synchronously with a position of said pusher (17), to distance a first product (Rd) of each series at least temporarily from a subsequent product (Figure 8B).

In/ regards to claim 19, the modified device of Wierschke discloses wherein said flexible member (i.e. 24/25/26) includes a pair of parallel chains (chains/belts, 24/25/26; col. 6, lines 7-12), one of said chains (24/25/26) being provided with a plurality of intermediate contact members (an intermediate portion of 27/28), said intermediate contact members being arranged in a laterally staggered position with respect to said longitudinal supporting element (14).

In regards to claim 24, the modified device of Wierschke discloses wherein at least one of said first contact member or said second contact member designed to grasp said products includes jaws or pliers-shaped grasping members (alternatively mechanical fingers; see col. 6, lines 8-15).

In regards to claim 26, the modified device of Wierschke discloses wherein said products are rolls (R) obtained from cutting a log (see abstract).

In regards to claim 47, the modified device of Wierschke discloses wherein said at least one of said contact members (27/28) is structured to cyclically co-act with an activation member (vacuum 44) to mechanically grip (Figure 8C) and release (Figure 8J) said at least a last product (Ru) of said series of products.

In regards to claim 52, the modified device of Wierschke discloses wherein each contact member (27/28) of said series of contact members is structured to press against an underlying product (R) in said series of products, and said device further includes a control device (master controller) for selectively accelerating and decelerating said flexible member and thereby said contact members (see col. 4, lines 48-50; col. 7, lines 25-35; col. 7, lines 25-35).

In regards to claim 54, the modified device of Wierschke discloses a trailing contact member (the last of the 27/28 between notches 28; fig. 3) structured to grip at least a last product (R) of each of said series of products, wherein said series of contact members are arranged between said leading contact member and said trailing contact member, and said section of the movable upper flexible member devoid of contact members is present between said trailing contact member and said leading contact member, wherein said control device (master controller) also controls said trailing contact member(i.e. col. 4, lines 48-50).

4. Claims 12, 20-23, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wierschke (U. S. Patent 5,458,033) in view of Perini (GB2137918) and in further view of Spencer (U.S. Patent 4,033,862).

Wierschke discloses that the contact members are comprised of a vacuum system, and as such does not disclose a system of contact members movable mounted orthogonal to the flexible member, acted on by a fixed control profile, comprised of shoes or jaw shaped grasping members. However, Wierschke does recognize that it is feasible to replace the vacuum aspect of the invention with random mechanical fingers in a short area on each of the two belt or chain systems per lane and still retain the new quick product variability (col. 6, lines 8-15). However, Wierschke does not provide detail as to the structure of the mechanical fingers. Attention is therefore directed to the Spencer device that discloses a similar apparatus for conveying wound rolls wherein defective rolls are discarded / allowed to fall away from the contact members or finger

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grippers. One having ordinary skill in the art would have recognized the applicability of utilizing the Spencer finger grasping members as anticipated by Wierschke to similarly grasp and transport the rolls along the conveyor.

Therefore, in regards to claim 12, the modified device of Wierschke discloses wherein a fixed control profile (Spencer; cam followers 53/54) acts on said movable portions (Spencer, fingers, 31/32/33), an elastic element (Spencer; spring, 43) being provided to hold each of said movable portions (19) in contact with said fixed control profile.

In regards to claim 20, the modified device of Wierschke discloses wherein said first contact member (Spencer grippers, 19) designed to grasp the last product (Ru) (see Wierschke Figures 8A-8L) of each series of products includes two shoes (i.e. Fingers, 31/32/33) and means are provided to control a grasping motion of said shoes (i.e. cams followers 53/54, springs 43).

In regards to claim 21, the modified device of Wierschke discloses wherein said second contact member (Spencer grippers, 19) designed to grasp at least the first product (Rd) of each series of products includes two shoes (i.e. Fingers, 31/32/33) and means are provided to control a grasping motion of said shoes (i.e. cams followers 53/54, springs 43).

In regards to claim 22, the modified device of Wierschke discloses wherein the two shoes (i.e. Fingers, 31/32/33) of said first contact member are controlled by a fixed cam profile (cam followers, 53/4), which controls a closing motion of said shoes.

In regards to claim 23, the modified device of Wierschke discloses wherein said flexible member (i.e. 24/25/26) includes a pair of parallel chains (i.e. chains/belts, 24/25/26; col. 6, lines 7-15 / Spencer 20/21), one of said chains being provided with a plurality of intermediate contact members (mechanical fingers, Wierschke col. 6, lines 8-15 / Spencer fingers 31/32/33), said intermediate contact members being arranged in a laterally staggered position with respect to the longitudinal supporting element (i.e. 15a/ 15b) and wherein each shoe of said first contact member is carried by a respective one of said chains (i.e. 24/25/26 / Spencer 20/21).

In regards to claim 44, the modified device of Wierschke discloses wherein said flexible member (i.e. 24/25/26) includes a pair of parallel chains (i.e. 24/25/26 / Spencer 20/21), one of said chains being provided with a plurality of intermediate contact members (mechanical fingers, Wierschke col. 6, lines 8-15 / Spencer fingers 31/32/33), said intermediate contact members being arranged in a laterally staggered position with respect to the longitudinal supporting element (i.e. 15a/ 15b) and wherein each shoe of said first contact member is carried by a respective one of said chains (i.e. 24/25/26 / Spencer 20/21).

Response to Arguments

5. Applicant's arguments filed 12/22/2009 have been fully considered but they are not persuasive. The applicant argues that Wierschke nor Perini disclose alone or in combination disclose a stationary longitudinal lower supporting element, where an essentially aligned position of the flexible member and of the supporting element being

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such that the products advance in contact with and supported during elimination of the trimmings by the contact member of the flexible member and by the lower supporting element. While it is true that neither Wierschke nor Perini disclose a completely stationary lower supporting element, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Wierschke teaches supporting the rolls against a non-moving rail, when not being pivoted for removal of the scrap products. Perini teaches a movable belt that supports the rolls in the same manner as Wierschke non-moving rail. Perini's contribution is teaching that by providing support at one side of the roll, instead of two rails as shown by Wierschke, that the pivoting motion of the Wierschke rails can be eliminated. Therefore, both the non-moving rail of Wierschke and the moving belts of Perini are shown to be employed in the same manner of guiding the rolls with the same overall effect, and both would be obvious as a means of supporting the rolls. The fact that Perini discloses a movable belt over a stationary rail does not appear to change the supporting function, as both are disclosed as performing this function. Modifying the Wierschke rail to be singular and non-pivoting would be an obvious modification as taught by Perini to perform the same intended roll supporting function.

Applicant also contends that neither Wierschke, Perini, or Spenser disclose a series of contact members and a leading contact member which grips at least a first product of a series of products or a trailing contact member to grip at least a least product of each series of products. However, the pads 27 and 28, are comprised of a series of notches 51, best shown in Fig. 3, each notch can be considered a contact member, such that there is a first, last and a series of contact members between them.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-

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8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura M Lee/
Examiner, Art Unit 3724
3/27/2010